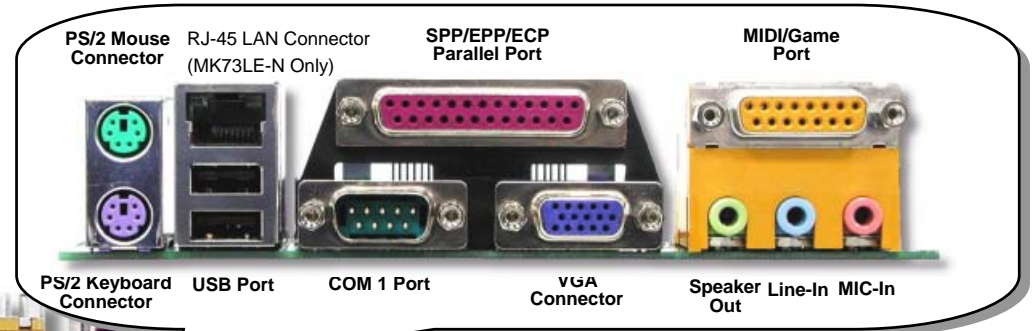


# MK73LE-N MK73LE-V

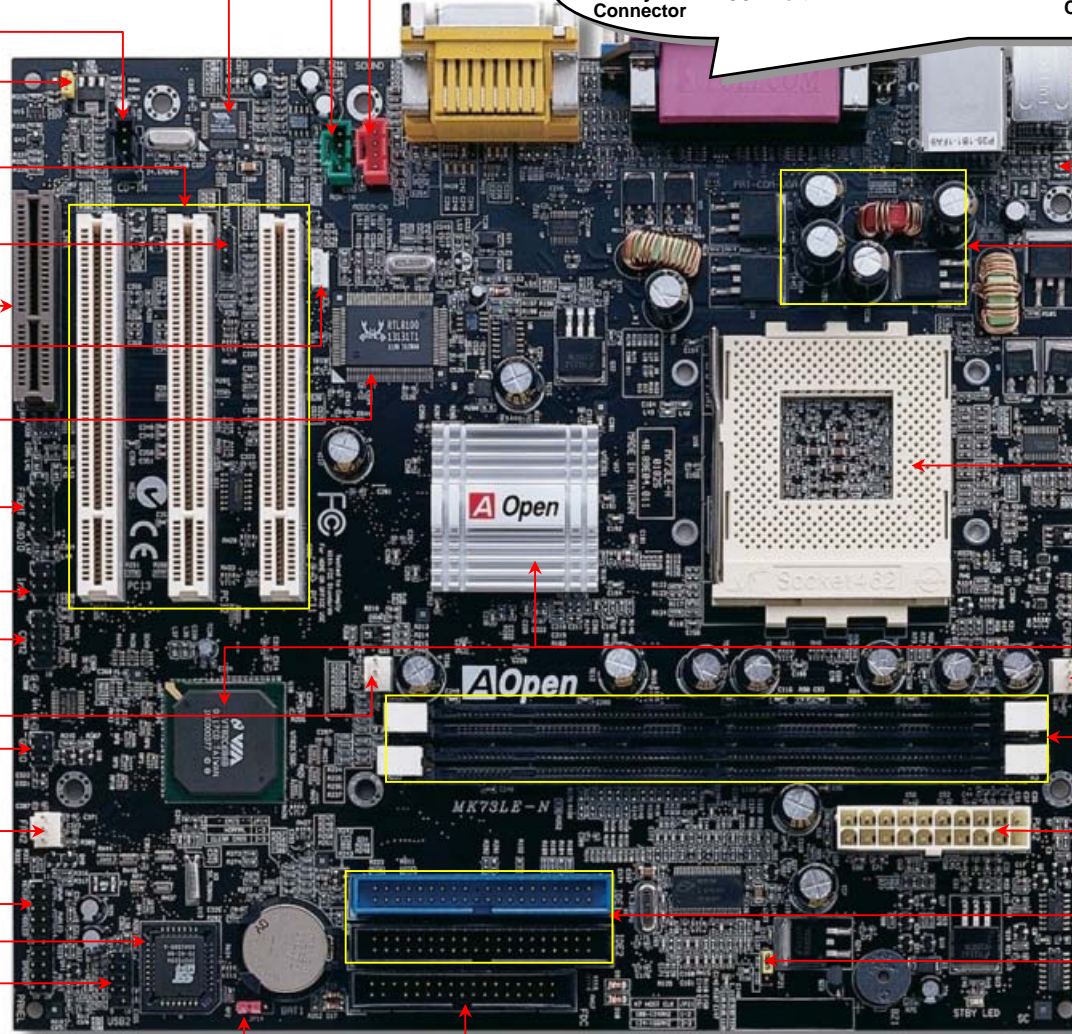
# Easy Installation Guide



- MODEM-CN Connector (Red)
- AUX-IN Connector (Green)
- Onboard AC'97 CODEC
- CD-IN Connector (Black)
- JP13 LAN Select Jumper (MK73LE-N Only)

- 32-bit PCI Slot x3
- WOM Connector (Wake On MODEM)
- CNR Slot
- WOL Connector (Wake On LAN)
- RTL8100 LAN Chip (MK73LE-N Only)

- Front Audio Connector
- IrDA Connector
- COM2 Connector
- Fan3 Connector
- GPO Connector
- Fan2 Connector
- Front Panel Connector
- 2Mb Flash ROM BIOS
- Support 2<sup>nd</sup> USB Port
- JP14 Clear CMOS



- Resettable Fuse
- Low ESR Capacitor
- 462-pin CPU Socket Supports AMD Duron / Athlon 600MHz~1.4GHz
- VIA Apollo KLE133 Chipset CPU Fan Connector
- PC-100/133 DIMM Socket x2
- ATX Power Connector
- ATA 33/66/100 IDE Connector x2
- JP21 CPU FSB Select
- FDD Connector

# Before You Start



Everything you need to boot this motherboard is included in this Easy Installation Guide. For more information, a complete **Online User's Manual** can be found in the **Bonus Pack CD Disc**. Thanks for the help of saving our earth!

# Accessory Checklist

- ✓ 80-conductor IDE Cable x 1
- ✓ Floppy Drive Cable x 1
- ✓ Bonus Pack CD disc x 1
- ✓ This Easy Installation Guide x 1

## 1. Clear CMOS Data



1  
Normal Operation  
(Default)

1  
Clear CMOS

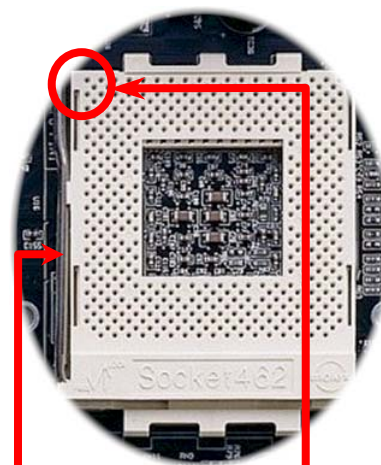
You can clear CMOS to restore system default setting. To clear the CMOS, follow the procedure below.

1. Turn off the system and unplug the AC power.
2. Remove ATX power cable from connector PWR2.
3. Locate JP14 and short pin 2-3 for a few seconds.
4. Return JP14 to its normal setting by shorting pin 1 & pin2.
5. Connect ATX power cable back to connector PWR2.

**Tip:** When should I Clear CMOS?

1. Boot fail because of overclocking...
2. Forget password...
3. Troubleshooting...

## 2. Installing CPU



CPU socket  
Lever

1. Pull CPU socket lever and up to 90-degree angle.
2. Locate Pin 1 on the socket and look for a black dot or cut edge on the CPU upper left. Match Pin 1 and cut edge. Then insert CPU into the socket.
3. Press down CPU socket lever to finish CPU installation.

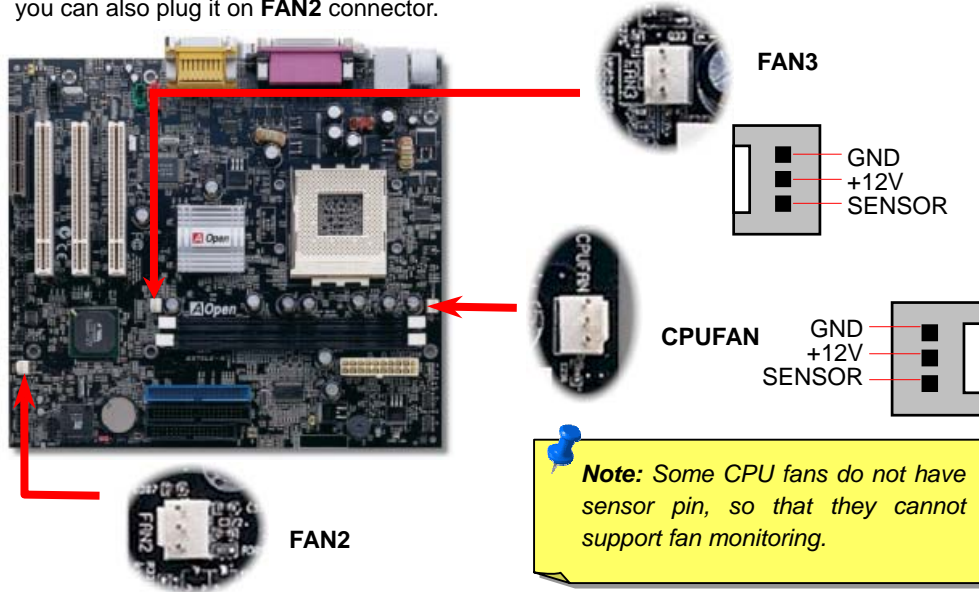
**Note:** If you do not match the CPU socket Pin 1 and CPU cut edge well, you may damage the CPU.

CPU Pin1



### 3. Installing CPU & Housing Fan

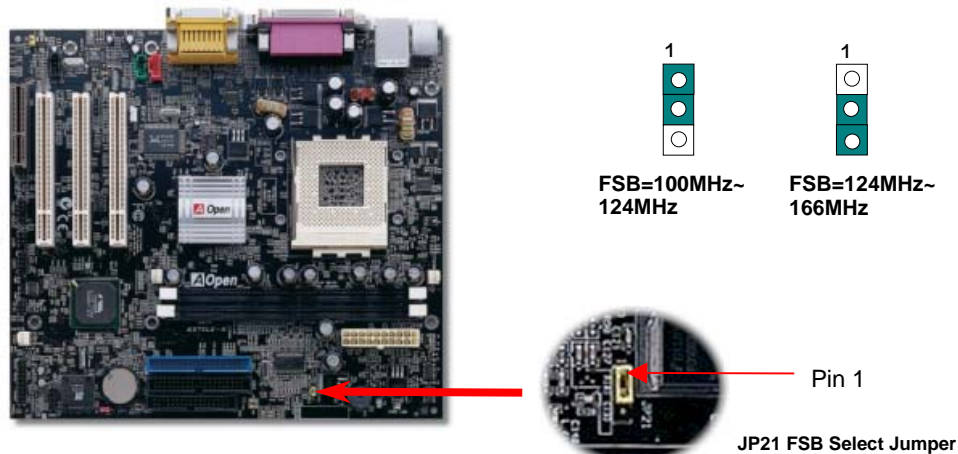
Plug in the CPU fan cable to the 3-pin **CPUFAN** connector. If you have housing fan, you can also plug it on **FAN2** connector.



**Note:** Some CPU fans do not have sensor pin, so that they cannot support fan monitoring.

### 4. Select FSB/PCI Clock

This jumper is used to specify the relationship of PCI and FSB clock. Generally speaking, if you are not an overclocker, we recommend you to set at the default setting.



### 5. Setting CPU Voltage & Frequency

#### CPU Core Voltage Auto-Detection

This motherboard supports CPU VID function. The CPU core voltage will be automatically detected from 1.1V~1.85V. It is not necessary to set CPU Core Voltage.

#### Setting CPU Frequency

This motherboard is CPU jumper-less design, you can set CPU frequency through the BIOS setup, and no jumpers or switches are needed.

**BIOS Setup > Frequency/Voltage Control > CPU Host Clock (CPU/PCI)**

**Core Frequency = CPU FSB Clock \* CPU Ratio**

<b>CPU Ratio</b>	5.5x, 6x, 6.5x .....12x, 12.5x, 13x
<b>CPU FSB</b>	100.2, 102, 104, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 118, 120, 133, 136, 140, 145, 150, 155, 160, and 166MHz

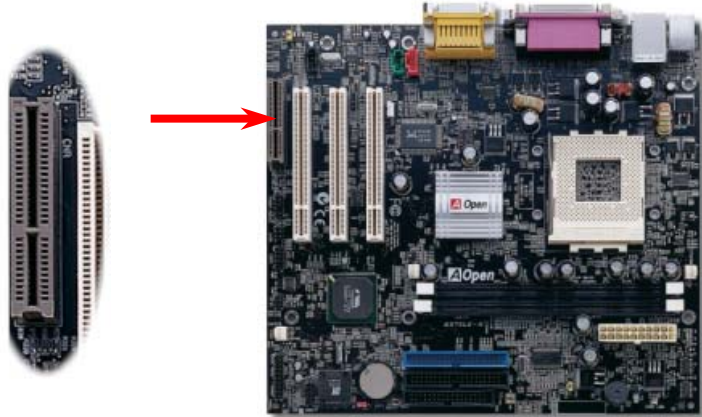
CPU	CPU Core Frequency	FSB Clock	Ratio
Athlon 800	800MHz	200MHz	8x
Athlon 850	850MHz	200MHz	8.5x
Athlon 900	900MHz	200MHz	9x
Athlon 950	950MHz	200MHz	9.5x
Athlon 1G	1GHz	200MHz	10x
Athlon 1.1G	1.1GHz	200MHz	11x
Athlon 1.2G	1.2GHz	200MHz	12x
Athlon 1.3G	1.3GHz	200MHz	13x
Athlon 1.4G	1.4GHz	200MHz	14x
Athlon 1G	1GHz	266MHz	7.5x
Athlon 1.13G	1.13GHz	266MHz	8.5x
Athlon 1.2G	1.2GHz	266MHz	9.0x
Athlon 1.33G	1.33GHz	266MHz	10x
Athlon 1.4G	1.4GHz	266MHz	10.5x
Athlon XP 1500+	1.3GHz	266MHz	10x
Athlon XP 1600+	1.4GHz	266MHz	10.5x
Athlon XP 1700+	1.46GHz	266MHz	11x
Athlon XP 1800+	1.53GHz	266MHz	11.5x
Athlon XP 1900+	1.6GHz	266MHz	12x
Duron 800	800MHz	200MHz	8x
Duron 850	850MHz	200MHz	8.5x
Duron 900	900MHz	200MHz	9x
Duron 950	950MHz	200MHz	9.5x
Duron 1G	1GHz	200MHz	10x
Duron 1.1G	1.1GHz	200MHz	11x

**Tip:** If your system hangs or fails to boot because of overclocking, simply use <Home> key to restore the default setting.



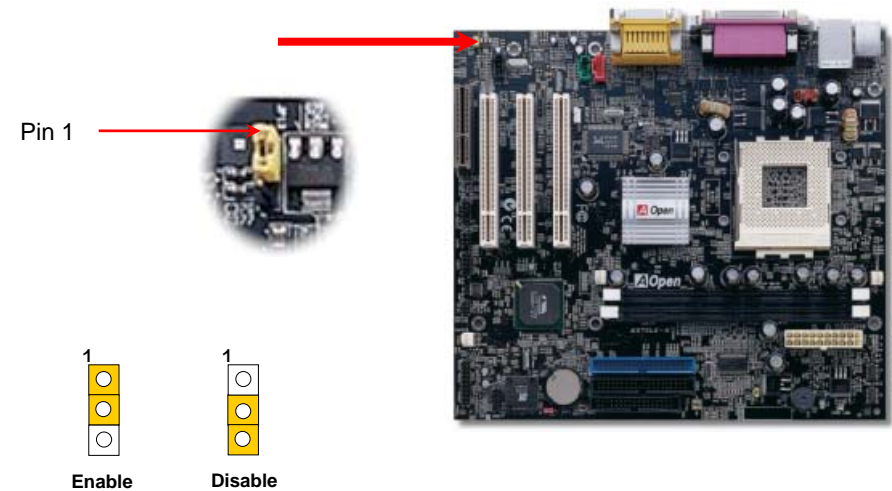
## 6. CNR Expansion Slots

CNR (Communication and Network Riser) is a riser card specification to replace the AMR (Audio / Modem Riser) that supports V.90 analog modem, multi-channel audio, and phone-line based networking. This motherboard implements sound CODEC on board (can be disabled in BIOS), but reserves CNR slot for the option of modem function. Note that you can still use PCI modem card. And due to hardware limitation, if the motherboard you purchased implements an optional Creative CT5880 Audio Controller, then there will not be CNR expansion slot on your motherboard.



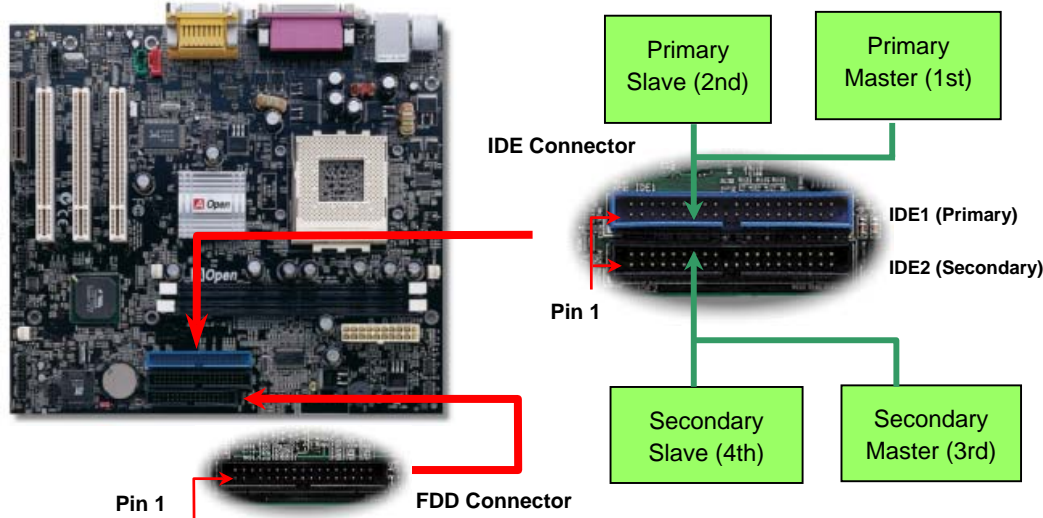
## 8. JP13 LAN Select Jumper (MK73LE-N Only)

This jumper allows you to enable or disable the LAN onboard function by adjusting the position of yellow cap.



## 7. Connecting IDE and Floppy Cable

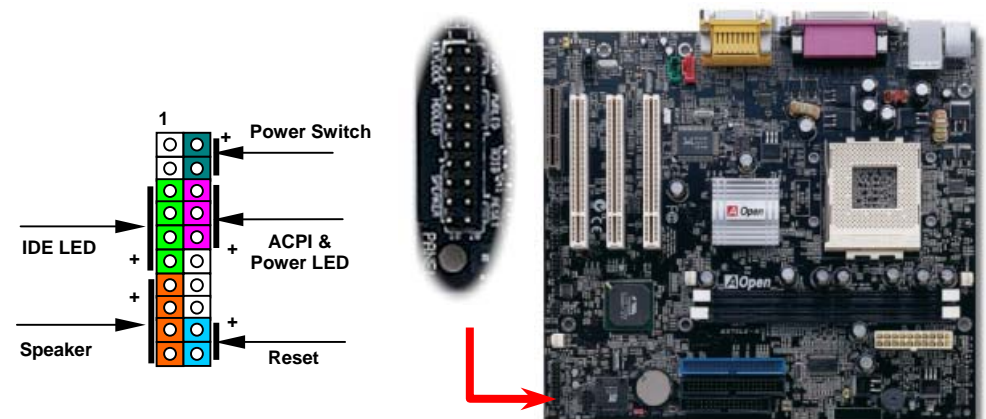
Connect 34-pin floppy cable and 40-pin IDE cable to floppy connector FDC and IDE connector. The **blue connector** is IDE1 for clear identification. Beware of the pin1 orientation. Wrong orientation may cause system damage.



## 9. Connecting Front Panel Cable

Attach the power LED, ACPI, speaker, power and reset switch connectors to the corresponding pins. If you enable "Suspend Mode" item in BIOS Setup, the ACPI & Power LED will keep flashing while the system is in suspend mode.

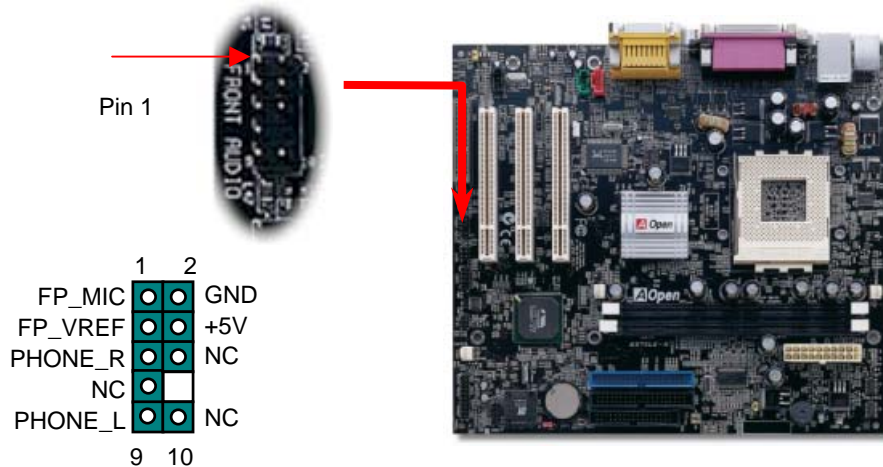
Locate the power switch cable from your ATX housing. It is 2-pin female connector from the housing front panel. Plug this connector to the soft-power switch connector marked **SPWR**.



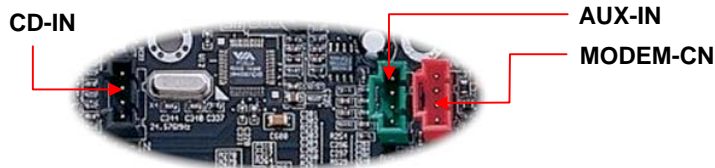


## 10. Installing Front Audio

If the housing has been designed with an audio port on the front panel, you'll be able to connect onboard audio to front panel through this connector.



## 11. Connecting CD / MODEM / AUX-IN



The **CD-IN** connector is used to connect CD Audio cable from CDROM or DVD drive to onboard sound.

The **MODEM-CN** connector is used to connect Mono In/ Mic Out cable from internal modem card to onboard sound circuit.

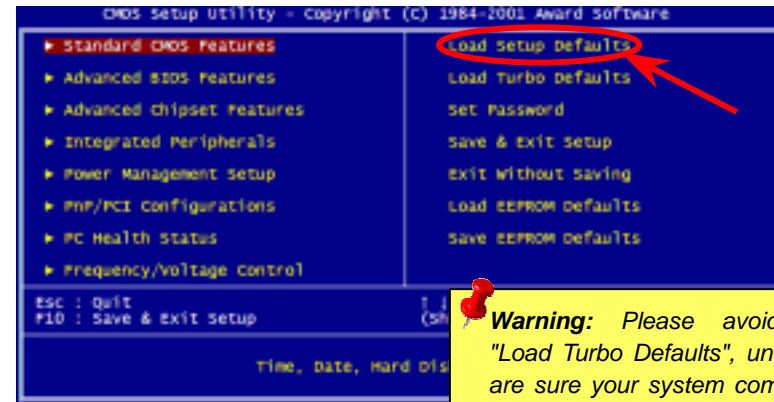
The **AUX-IN** connector is used to connect MPEG Audio cable from MPEG card to onboard sound.

Connector	Pin1	Pin2	Pin3	Pin4
CD-IN	Left	GND	GND	Right
MODEM-CN	Mono In	GND	GND	Mic Out
AUX-IN	Left	GND	GND	Right

## 12. Power-on and Load BIOS Setup

Del

After you finish the setting of jumpers and connect correct cables. Power on and enter the BIOS Setup, press <Del> during POST (Power On Self Test). Choose "Load Setup Defaults" for recommended optimal performance.



**Warning:** Please avoid using "Load Turbo Defaults", unless you are sure your system components (CPU, DRAM, HDD etc.) are good enough for turbo setting.

## 13. Installing LAN Driver (MK73LE-N Only)

You can install LAN Driver under Windows95/98, Windows NT and Windows 2000 for Realtek RTL8139 Family (RTL8100 included) PCI Fast Ethernet adapter by following steps.

Installing driver procedure on Microsoft Windows 95 :

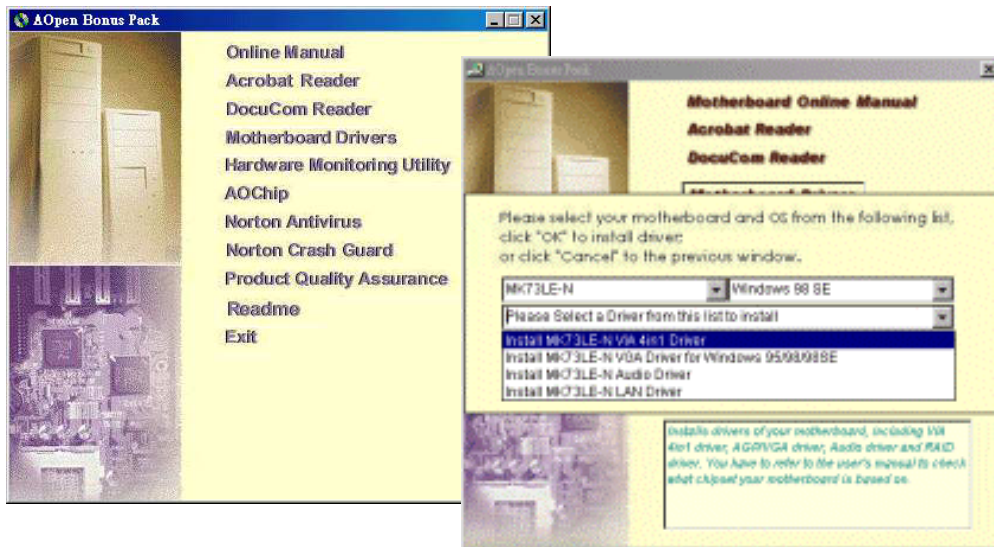
1. Select "Driver from disk provided by hardware manufacturer" when being asked which driver you would like to install.
2. Specify the setup file pathname  
[CD-ROM]:Driver\LAN\RTL8100\Windows\Win95\WIN95A (for Windows 95 and Win95A) or  
[CD-ROM]:Driver\LAN\RTL8100\Windows\Win95 (for Windows 95 OSR2).
3. Follow the procedure and insert Windows 95 system disk to complete setup step.
4. Windows 95 will finish the other installation procedures automatically, and then restart your system.

Installing driver for Win98/Win98 SE/Windows2000/Windows ME :

1. Select "Driver from disk provided by hardware manufacturer" when being asked which driver you would like to install.
2. Specify the setup file pathname  
[CD-ROM]:Driver\LAN\RTL8100\Windows\WIN98 (for Windows 98/98 SE) or  
[CD-ROM]:Driver\LAN\RTL8100\Windows\WIN2000 (for Windows 2000) or  
[CD-ROM]:Driver\LAN\RTL8100\Windows\Windows ME (for Windows ME)
3. Follow the procedure and insert your system disk (Win98/Win98 SE/Windows2000/Windows ME) to complete setup step.
4. Win98/Win98 SE/Windows2000/Windows ME will finish the other installation procedures automatically, and then restart your system.

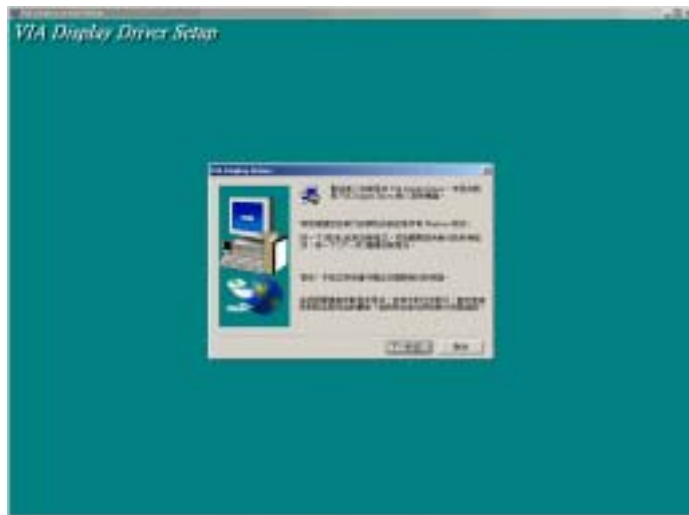
## 14. AOpen Bonus Pack CD

You can use the autorun menu of Bonus CD disc. Choose the utility and driver and select model name.



## 15. Installing Onboard AGP Driver

VIA Apollo KLE133 chipsets integrates a 2D/3D graphics accelerator and provides AGP 2X/4X incredible performance to access main memory at over 1GB/s. You can find the AGP driver from the autorun menu of Bonus Pack CD.



## 16. Installing Onboard Audio Driver

This motherboard comes with an AC97 CODEC. You can find the audio driver from the Bonus Pack CD disc autorun menu.



## 17. BIOS Upgrade

AOpen Easy Flash is user-friendlier than traditional flash method. The BIOS binary file and flash routine are combined together and you simply run a single file to complete the flash process.

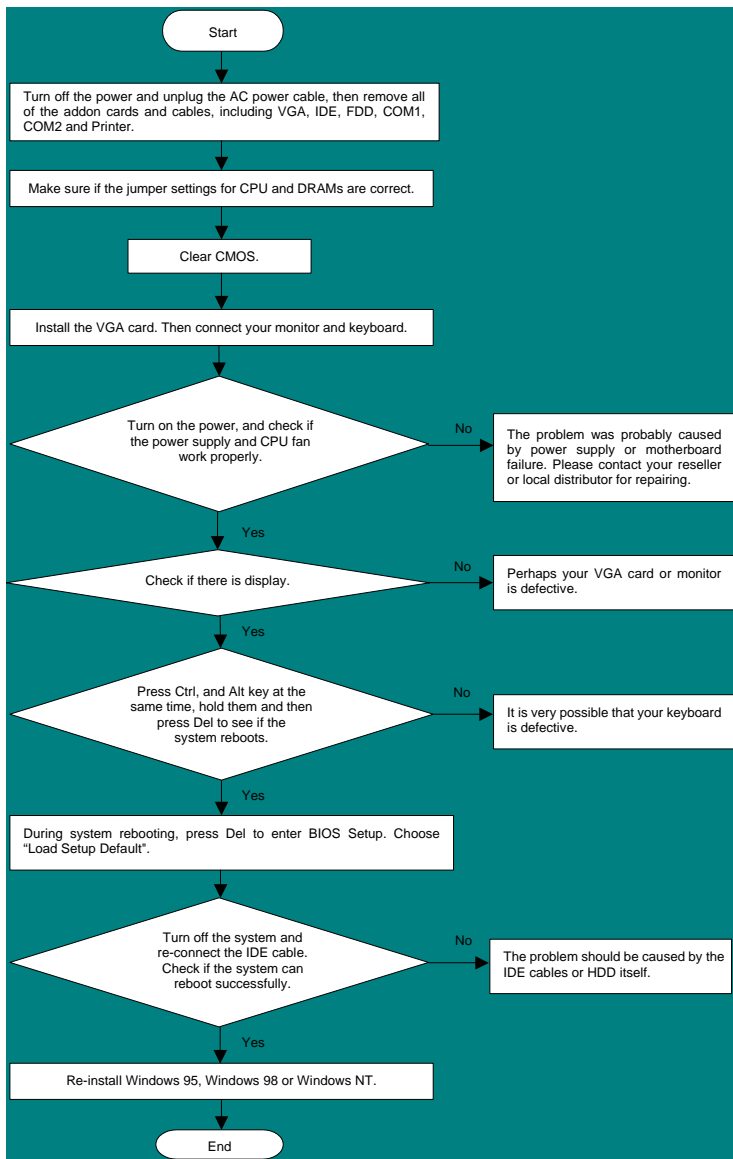
1. Download new BIOS upgrade zipped file from AOpen's web site. For example, MK73LEN102.ZIP.
  2. Run shareware PKUNZIP (<http://www.pkware.com/>) which supports miscellaneous operation systems to extract the binary BIOS file and the flash utility. Or Winzip (<http://www.winzip.com/>) in Windows environment.
  3. Save the unzipped file into a bootable floppy disk. For example, MK73LEN102.BIN & MK73LEN102.EXE
  4. Reboot the system to DOS mode without loading any memory handler (such as EMM386) or device driver. It needs around 520K free memory space.
  5. Execute A:> MK73LEN102 and the program will do the rest of it.
- DO NOT turn off the power during FLASH PROCESS until you are asked to!!**
6. Reboot system and press <Del> to enter BIOS Setup, Choose "Load Setup Defaults", then "Save & Exit Setup" and finish the BIOS upgrade.

**Warning:** The upgrade of new BIOS will permanently replace your original BIOS content after flashing. The original BIOS setting and Win95/Win98 PnP information will be refreshed and you probably need to re-configure your system.



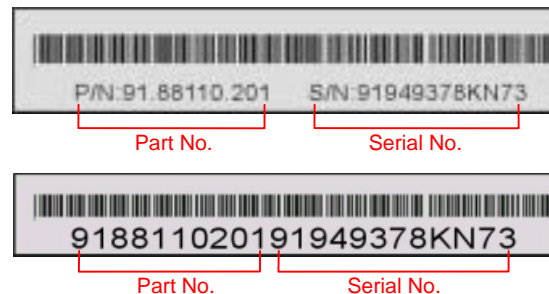
# Troubleshooting

If you encounter any trouble to boot you system, follow the procedures accordingly to resolve the problem.



## Part Number and Serial Number

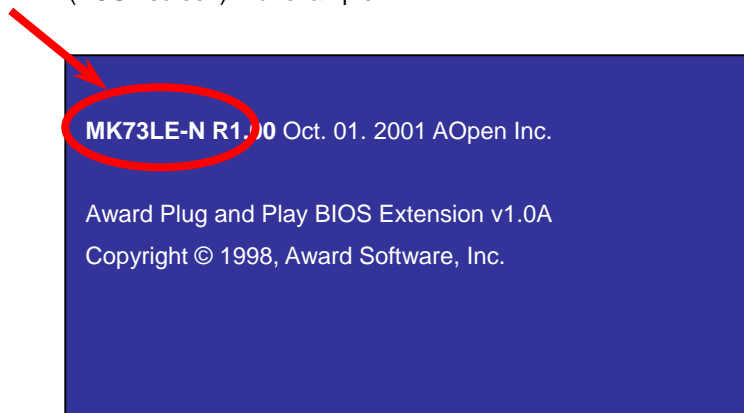
The Part Number and Serial number are printed on bar code label. You can find this bar code label on the outside packing, on ISA/CPU slot or on component side of PCB. For example:



**P/N: 91.88110.201** is part number, **S/N: 91949378KN73** is serial number.

## Model name and BIOS version

Model name and BIOS version can be found on upper left corner of first boot screen (POST screen). For example:



**MK73LE-N** is model name of motherboard, **R1.00** is BIOS version.



# Technical Support

Dear Customer,

Thanks for choosing AOpen products. To provide the best and fastest service to our customer is our first priority. However, we receive numerous emails and phone-calls worldwide everyday, it is very hard for us to serve everyone on time. We recommend you follow the procedures below and seek help before contact us. With your help, we can then continue to provide the best quality service to more customers.

Thanks very much for your understanding!

AOpen Technical Supporting Team

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AOpen Inc.  
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Tel: 86-21-62258622  
Fax: 86-21-62257926

Germany  
AOpen Computer GmbH.  
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Fax: 49-2102-157799

America  
AOpen America Inc.  
Tel: 1-510-498-8928  
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Web Site: [www.aopen.com](http://www.aopen.com)

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Japanese <http://aojp.aopen.com.tw/tech/contact/techjp.htm>

Chinese <http://w3.aopen.com.tw/tech/contact/techtw.htm>

German <http://www.aopencom.de/tech/contact/techde.htm>

French <http://aofr.aopen.com.tw/tech/contact/techfr.htm>

Simplified Chinese <http://www.aopen.com.cn/tech/contact/techcn.htm>

1

**Online Manual:** Please check the manual carefully and make sure the jumper settings and installation procedure are correct.  
<http://www.aopen.com.tw/tech/download/manual/default.htm>

2

**Test Report:** We recommend to choose board/card/device from the compatibility test reports for assembling your PC.  
<http://www.aopen.com.tw/tech/report/default.htm>

3

**FAQ:** The latest FAQ (Frequently Asked Questions) may contain a solution to your problem.  
<http://www.aopen.com.tw/tech/faq/default.htm>

4

**Download Software:** Check out this table to get the latest updated BIOS/utility and drivers.  
<http://www.aopen.com.tw/tech/download/default.htm>

5

**News Group:** Your problem probably had been answered by our support engineers or professional users on the news group.  
<http://www.aopen.com.tw/tech/newsgrp/default.htm>

6

**Contact Distributors/Resellers:** We sell our products through resellers and integrators. They should know your system configuration very well and should be able to solve your problem more efficiently. After all, it is an important reference when you want to buy something else from them next time.

7

**Contact Us:** Please prepare detail system configuration and error symptom before contacting us. The **part number**, **serial number** and **BIOS version** are also very helpful.